

WHEN YOUR SEPTIC SYSTEM FAILS

If you own a home with a septic system that fails inspection (Title 5) by a Massachusetts State Certified Septic System Inspector, you may be confused about the process of having a repair or “upgrade” system designed and installed. The following is a brief guide to the steps you need to take in order to remedy this situation. If you feel you need more guidance, or if you have any questions that aren’t answered here, please call the Westford Board of Health, Monday through Friday from 8-4 at (978) 692-5509.

1. The first step is to select a septic system designer. Either a Massachusetts Registered Professional Engineer or a Massachusetts Registered Sanitarian are qualified to design and certify septic systems. A list of local engineers that have submitted plans to the Board of Health (**BOH**) within the last few years is attached to this guidance and is also available at the BOH office. Don’t hesitate to request a written estimate, references and/or information about qualifications and experience.
2. Fill out the lot testing application and file it with the Board of Health along with a check for the filing fee (in many instances the Engineer you choose can complete this for you).
3. After your application is paid for and filed, your engineer should call the Board of Health to arrange a date for the BOH or its agent to be present to witness the lot testing. Lot testing includes percolation (“perc”) tests and “deep hole” tests, both of which are needed to assess the types of soils and drainage capabilities. Typically, lot testing occurs 2 weeks after the engineer requests a testing date from the BOH.
4. You will need to hire a backhoe contractor to dig the test holes. If you wish, your engineer can refer you to local contractors who provide this service. The cost will vary according to the number of holes needed and the nature of the site. Your backhoe operator should contact the Westford Water Department if the property is serviced by town water and Dig Safe as soon as your lot testing appointment has been scheduled, for they require a few days prior notice to mark out their respective utilities.
5. Based upon the soil test results and other characteristics of your property (such as wetlands or drinking water wells on your property or nearby) your engineer will now design a subsurface disposal facility. As the homeowner, you should review this proposed plan with your engineer and understand what types of grading changes (if any) will be taking place on your property. Also, proposed work within certain distances of wetlands may need to be addressed by the Conservation Commission prior to any construction.
6. As well as engineering services, some land surveying will be needed to determine the varying elevations of the site so the proposed septic system components can be located properly. Note, after installation the same needs to be done to certify that the system components were installed where they were shown on the proposed plans.
7. Now the septic system plan prepared by your engineer must be submitted to the Board of Health for review and approval. This review period for the BOH is typically 2 weeks. Massachusetts General Law allows the Board up to 45 days to complete this review however. Keep in mind that incomplete submittals requiring revisions from the engineer or plans that require variances which need to be approved at a BOH meeting, etc. may extend these timeframes.
8. Once the Board of Health has approved the plan, you will need to hire a contractor who is licensed in Westford to install the system. Again, be sure to ask for written estimates, qualifications and references. Repair or upgrade system costs vary according to many factors, including but not limited to the nature of the problem that caused the original system to fail, the soil conditions and the size of the lot and it’s limitations among other things.

9. During the installation process the designer and Board of Health will perform construction inspections to help ensure quality and adherence to the approved plans specifications.
10. Once the installer has fully completed the installation, the installer and the engineer submits their respective certification statements to the Board of Health. In addition, the engineer is required to provide an "as-built plan" which shows the location and elevations of the now installed septic system and certify that the system has been installed in accordance with the approved plan and Title 5.
11. Once all the aforementioned items have been submitted to the BOH, they are now reviewed. Again, the review period for the BOH is typically 2 weeks. If everything is in order at this time, the BOH will issue the homeowner a Certificate of Compliance meaning the system has been completed and approved.
12. Keep all records regarding the installation (location of septic system and leach field, installation date, installer's name, etc.) for your future reference. It's also a good idea to keep records of all inspections, pump-outs and any other maintenance performed over the life of the system.
13. Once your new system is installed and on-line, you can extend its life by taking care to keep it functioning properly:
 - Have the tank pumped out every 2-3 years, generally. Once your pumping Contractor gets familiar with your system and the type of use it receives, he/she can make more specific recommendations regarding pumping frequency.
 - Chemical additives are not substitutes for regular pumping and maintenance, some are actually harmful to nature and some do not work at all. The state publishes a list of "approved" additives but states only that the product will not harm the septic system components or adversely affect system function or the environment when used on a schedule recommended by the manufacturer, not that they are helpful in any way.
 - Conserve water (repair dripping faucets and leaking toilets, run only full wash loads, install "low-flow" toilet and showerheads, etc.) to extend the life of your system.
 - Make sure sump pumps, roof drains and storm water is diverted away from, not toward, your septic system.
 - Don't allow cars and heavy machinery over any of the septic system components unless they were specifically designed to accept increased loads.
 - Take care when landscaping to ensure that water-seeking roots of trees and shrubs don't damage the system.
 - Don't use the toilet as a trash can, and avoid using or pouring harsh chemical products down the drain. These can kill the bacteria that are necessary to treat the wastewater in your septic system.
 - If you have a water filtration system, be sure it is installed so that backwash water will *not* flow to the septic system. It is harmful to the leach field and not allowed. A dry well or the such may be installed to accept these flows.
 - Don't install garbage disposals; these are not permitted unless the system was specifically designed to accommodate them. FYI, septic system leaching area requirements are increased by 50% when a garbage grinder is proposed.

Additional information regarding regulations, guidance, and links to the Massachusetts Department of Environmental Protection can be found on the Westford Board of Health web page at <http://westford.mec.edu/hlthsafe/boh/health.htm>. This guidance article was prepared by the Westford Board of Health with assistance from David E. Ross Associates, Ayer, MA.